DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	RHUBARB POND	Lake Area (ha):	0.81
Town:	PITTSBURG	Maximum depth (m):	1.1
County:	Coos	Mean depth (m):	0.4
River Basin:	Androscoggin	Volume (m^3):	3000
Latitude:	45°17'55" N	Relative depth:	1.1
Longitude:	71°05'08" W	Shore configuration:	1.25
Elevation (ft):	2305	Areal water load (m/yr):	137.0
Shore length (m):	400	Flushing rate (yr^{-1}):	373.0
Watershed area (ha):	132.3	P retention coeff.:	0.16
% watershed ponded:	0.0	Lake type:	natural w/dam

BIOLOGICAL:		24 March 1994	2 August 1993
DOM. PHYTOPLANKTON (% TOTAL)	#1	NO PHYTOPLANKTON	NET PHYTOPLANKTON
	#2	SAMPLES ANALYZED	SPARSE - NO DOMINANT
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			120
CHLOROPHYLL-A (µg/L)			1.22
DOM. ZOOPLANKTON (% TOTAL)	#1	NO ZOOPLANKTON	NAUPLIUS LARVA 38%
	#2	SAMPLES ANALYZED	DAPHNIA 38%
	#3		
ROTIFERS/LITER			3
MICROCRUSTACEA/LITER			12
ZOOPLANKTON ABUNDANCE (#/L)			16
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			1.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		5.2	9.3
BACTERIA (E. coli, #/100 ml)	#1		4
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m^3) : None
Anoxic volume (m^3) : None

CHEMICAL:

Lake: RHUBARB POND
Town: PITTSBURG

	24 March 1994		2 August 1993		
DEPTH (m)	1.0		1.0		
pH (units)	6.2		6.3		
A.N.C. (Alkalinity)	18.3		4.5		
NITRATE NITROGEN	0.20		< 0.02		
TOTAL KJELDAHL NITROGEN	0.47		0.35		
TOTAL PHOSPHORUS	0.012		0.011		
CONDUCTIVITY (µmhos/cm)	48.9		22.2		
APPARENT COLOR (cpu)	48		75		
MAGNESIUM			0.49		
CALCIUM			3.4		
SODIUM			< 1.0		
POTASSIUM			< 0.40		
CHLORIDE	< 2		< 3		
SULFATE	3		3		
TN : TP	56		32		
CALCITE SATURATION INDEX			3.8		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1993

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	1	0	4	Oligo.

COMMENTS:

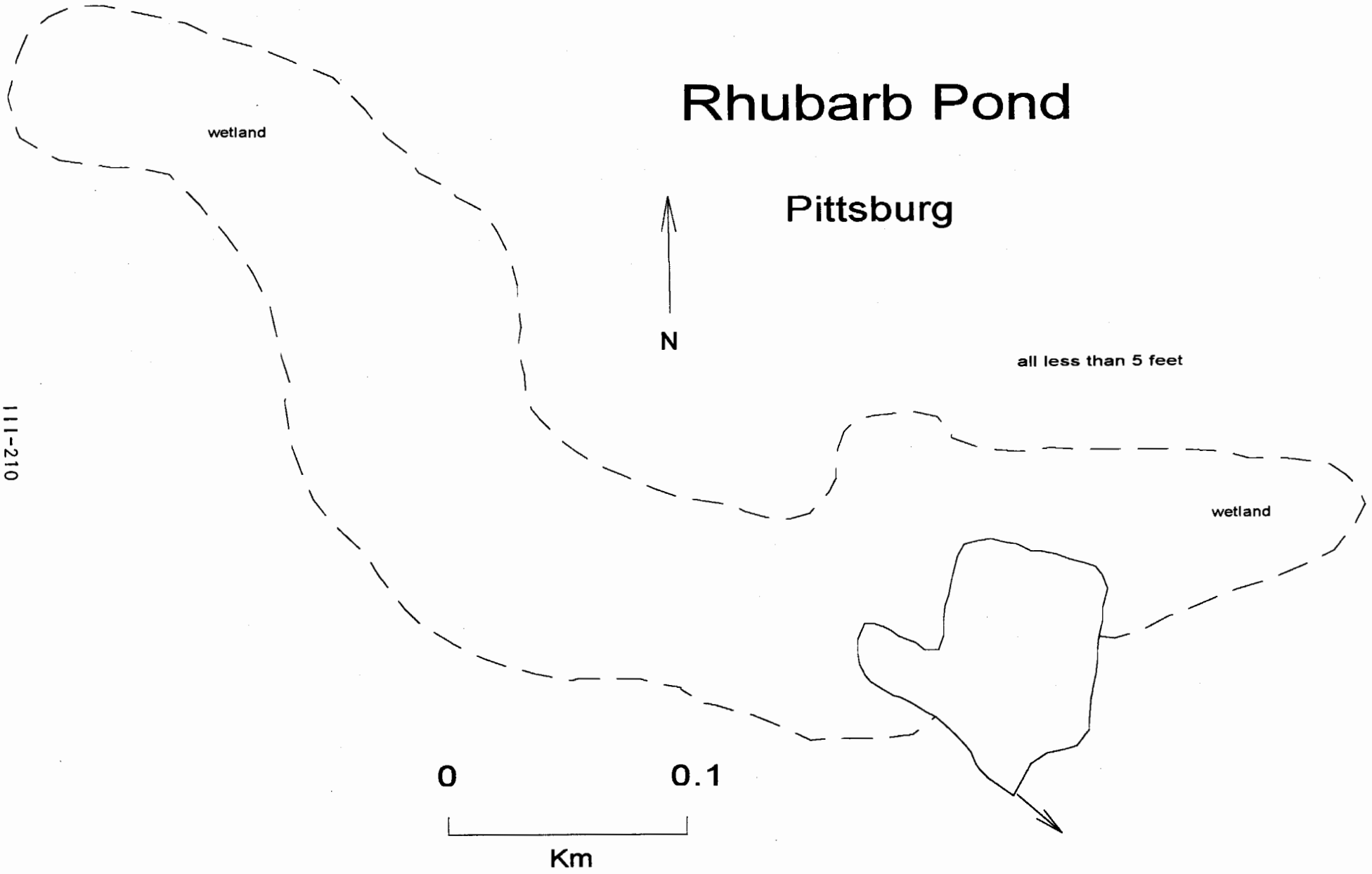
1. This is a remote pond that was sampled cooperatively with the NH Fish and Game Department. This is the most northern New Hampshire pond, located in the northern extremity of Pittsburg near the Maine, New Hampshire and Canadian borders.

2. No winter plankton samples were collected.

3. Access was via Champion logging company roads, approximately 15 miles from Route 3. The logging road ran below the dam and was washed out in this area.

4. This is a very shallow pond surrounded by wetlands.

5. Cryptomonas (50%) was the dominant genus of wholewater phytoplankton.


Rhubarb Pond
Pittsburg
wetland
N
all less than 5 feet
wetland
0
0.1
Km

FIELD DATA SHEET

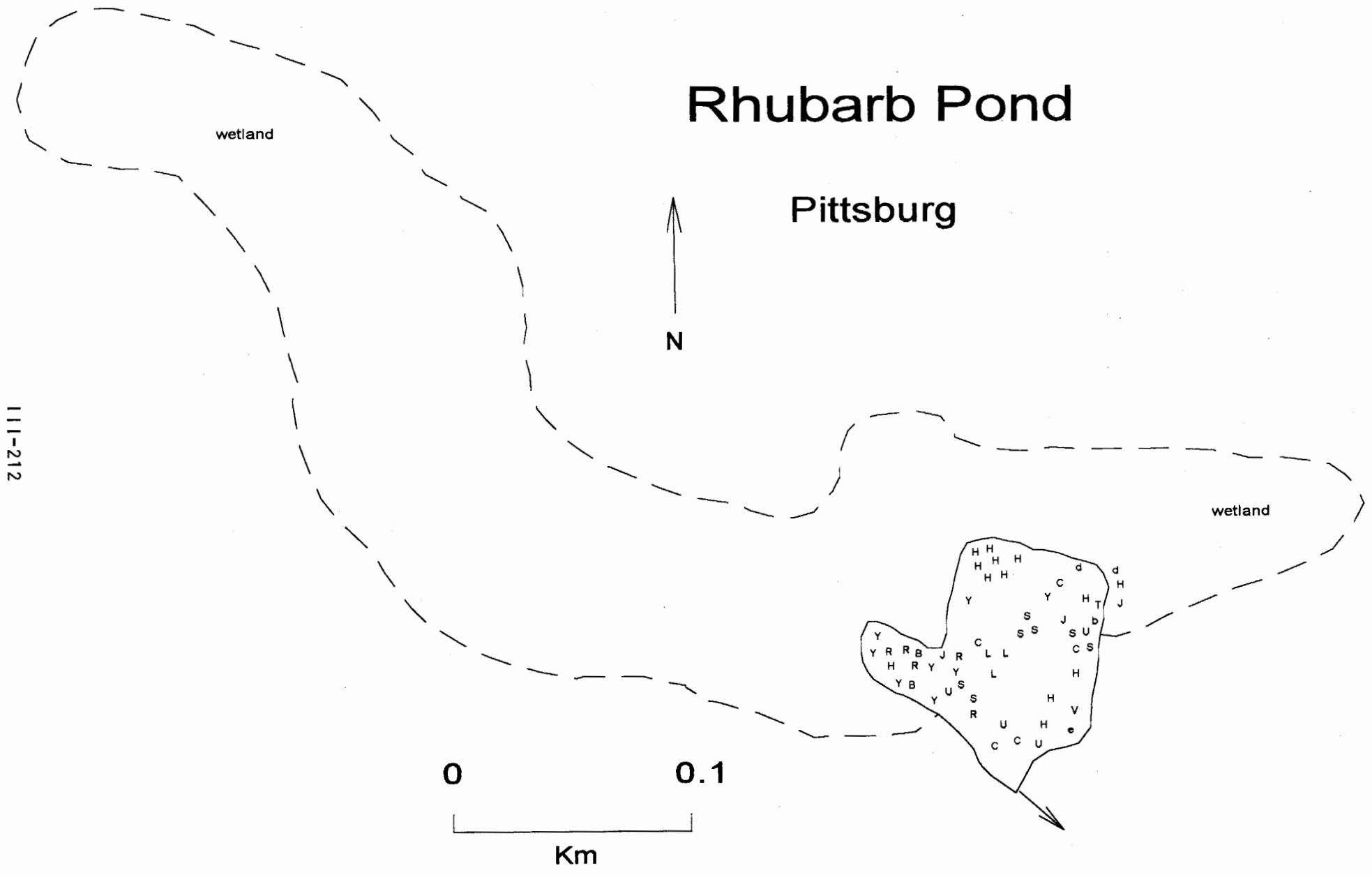
LAKE: RHUBARB POND **TOWN: PITTSBURG**
DATE: 08/02/93 **WEATHER: WARM & CLOUDY**

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	19.0	7.8	83 %
	0.5	15.5	5.8	57 %
	1.0	14.3	8.5	82 %
	1.1	14.0	9.3	90 %

SECCHI DISK (m): 1.1 VOB
BOTTOM DEPTH (m): 1.1
TIME: 1500

***Dissolved oxygen values are in mg/L**

COMMENTS:
Surface warming had occurred, creating a 5°C temperature difference within one meter of water depth. Interestingly, the maximum dissolved oxygen (both actual and % saturation) was at the bottom, presumably from photosynthesis of bottom plant growth.


Rhubarb Pond
Pittsburg
wetland
wetland
N
0
0.1
Km

AQUATIC PLANT SURVEY

LAKE: RHUBARB POND TOWN: PITTSBURG DATE: 08/02/93

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
U	Utricularia	Bladderwort	Sparse
e	Eleocharis	Spike rush	Sparse
V	Vallisneria americana	Tape grass	Sparse
g	Myrica gale	Sweet gale	Abundant
L	Chamaedaphne calyculata	Leatherleaf	Abundant
J	Juncus	Rush	Sparse
T	Typha	Cattail	Sparse
S	Sparganium	Bur reed	Scattered
B	Brasenia schreberi	Water shield	Sparse
d	Dulichium arundinaceum	Three-way sedge	Sparse
b	Scirpus	Bulrush	Sparse
Y	Nuphar	Yellow water lily	Scattered
H	Hippuris vulgaris	Mare's-tail	Scattered
R	Potamogeton robbinsii	Robbins pondweed	Scattered
C	Cyperaceae or Juncus	Non-flowering sedge/rush	Sparse

OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

1. Leatherleaf and sweet gale surrounded the entire pond. They were abundant, but were not included in the overall rating of "scattered" that included only plants in the open water. Other wetland plants included various sedges and grasses, along with sundew and pitcher plants.

2. A beaver dam was present; bryozoans were observed around the dam.

3. A good population of naturally reproducing brook trout were present.